SIGNIFICANT AMENDMENT
AQUIFER PROTECTION PERMIT NO. P- 101449
PLACE ID 4477 LTF 65943

1.0 Authorization

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Salt River Project (SRP) to operate the discharging facilities at Coronado Generating Station (CGS) located along Highway 191, approximately six miles northeast of St. Johns, Arizona in Apache County, Arizona, over groundwater of the Little Colorado River Plateau Basin, in Section 33, Township 14 North, Range 29 East of the Gila and Salt River Baseline and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 Permittee Information

Facility Name:	SRP Coronado Generating Station
Facility Address:	6 miles NE of St. Johns, Arizona U.S. Highway 191
County:	Apache St. Johns, Arizona 85936
Permitted Fee Flow Rate:	1,800,000 gallons per day (gpd).
Permittee:	Salt River Project Agricultural Improvement and Power District
Permittee Address:	Coronado Generating Station P.O. Box 1018 St. Johns, Arizona 85936
Facility Contact:	Plant Manager
Emergency Phone No.:	(928) 337-2211 or (928) 337-4131
Latitude/Longitude:	34° 34' 40" North/109° 16' 12"West
Legal Description:	Section 33, Township 14 North, Range 29 East of the Gila and Salt River Baseline and Meridian

1.2 Authorizing Signature

_____

Trevor Baggiore, Director,
Water Quality Division
Arizona Department of Environmental Quality
Signed this _____day of _____, 2018

_____

Laura Malone, Director
Waste Programs Division
Arizona Department of Environmental Quality
Signed this _____day of _____, 2018

THIS AMENDMENT SUPERCEDES ALL PREVIOUS AMENDMENTS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Coronado Generating Station (CGS) is located on two sites; the northern area site (Plant Site) and the southern area site which is located approximately 1.5 mile southwest of the plant site.

The northern area site (Main Plant Site) is located within 640 fenced acres. This facility consists of two pulverized coal-fired, steam electric generating units which have a maximum rated generating capacity for the entire plant of approximately 912 megawatts. Commercial operations began in 1979. The operating units consist of a main power building, sulfur dioxide absorbers and limestone handling equipment, a railroad spur, coal and ash handling facilities, coal mixing facilities, a combined administration and service building, water and wastewater storage reservoirs, water treatment building, mechanical draft cooling towers operating at approximately 17 cycles of concentration, 500-kilovolt (kV) and 69-kV switchyards, and water supply from satellite well fields.

The southern area site is a 969-acre area Coal Combustion Residual (CCR) management complex. This site includes the Evaporation Pond, the Ash Disposal Landfill, the Inactive Ash Slurry Settling Ponds and the Solid Waste Landfill.

ADEQ has reviewed and approved this significant permit amendment to incorporate facility changes needed to comply with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual (CCR) Rule and other permit change requests.

- Add a new Point of Compliance (POC) well, MW-78, based upon recent investigations associated with the USEPA CCR Rule. The current POC well, MW-51, was determined to be up-gradient of the CCR management complex and therefore unsuitably located to be a POC well. Well MW-78 will serve a dual role, as both the CCR management complex POC well and Inactive Ash Slurry Settling Ponds post-closure care monitoring well.
- Incorporate alert levels (ALs) and aquifer quality limits (AQLs) for the new POC well MW-78.
- Incorporate facility changes needed at the Evaporation Pond, Ash Disposal Landfill, and Inactive Ash Slurry Settling Ponds which collectively are discharging facilities within the CCR Rule management complex.
- Submit the final Inactive Ash Slurry Settling Ponds Closure design, narrative description, closure cost estimate closure timeline, and post-closure care and monitoring plan.
- Approve replacement POC well MW-67R.
- Approve edits to the current APP including:
    - Add a Compliance Schedule Item (CSI) to conduct closure and begin post-closure care of the Inactive Ash Slurry Settling Ponds not requiring an amendment.
    - Remove Cooling Tower Canals be removed from Section 2.1.12 and the list of permitted discharging facilities table in Section 2.1.
    - Characterization of the Inactive Ash Slurry Settling Ponds material.
    - Clarification of the following sections of the APP:
        - Remove average daily flow rate from Sections 2.1.2, 2.1.3, 2.1.7, and 2.1.8.
        - Clarify deadline requirements in Sections 2.6.3.4 and 2.7.3.
        - Add a BADCT narrative for the Coal Yard Retention Pond from Section 2.1.4 to Section 2.2.1 BADCT engineering design.
        - Change Table 4 Discharge Monitoring Sampling Points point 8 from Coal Storage Retention Pond to Coal Yard Retention Pond.
        - Change Table 4A listing for Coal Yard Retention Pond to Coal Yard
        - Retention Pond with the corresponding latitude and longitude: 34° 34’ 35.50” North, 109° 16’ 9.70” West
        - Define PQL as Practical Quantification Limit in Section 2.5.3.1.1.
        - Incorporate updated Revised Self-Monitoring Report Forms and Logbook requirements per ADEQ’s April 30, 2014 letter from Lucy Ruiz.
    - Update permit language based upon the most recent framework

The site includes the following permitted discharging facilities:

Facility	Latitude North	Longitude West	Location
West Recoverable Water Reservoir	34° 34' 47.02"	109° 16' 21.91"	Plant Site
East Recoverable Water Reservoir	34° 34' 47.05"	109° 16' 20.25"	Plant Site
Cooling Tower Blowdown Reservoir	34° 34' 50.48"	109° 16' 21.22"	Plant Site
Wastewater Reservoir	34° 34' 48.70"	109° 16' 21.17"	Plant Site
Yard Ditch	34° 34' 42.80"	109° 16' 16.11"	Plant Site
Evaporation Pond	34° 33' 20.37"	109° 17' 53.64"	CCR Management Complex
Northeast Retention Pond	34° 35' 03.07"	109° 15' 41.15"	Plant Site
Ash Disposal Landfill	34° 33' 16.2"	109° 16' 59.13"	CCR Management Complex
Solid Waste Landfill	34° 34' 5.1"	109° 16' 57.2"	Southwest of Plant Site
Fire Training Area	34° 34' 53.81"	109° 16' 22.24"	Plant Site
Coal Yard Retention Pond	34° 34' 35.50"	109° 16' 09.70"	Plant Site
Concrete Lined Overflow Containment Area	34° 34' 50.05"	109° 16' 18.95"	Plant Site
Ash Slurry Settling Ponds (Inactive)	34° 33'0.88"	109° 17' 24.28"	CCR Management Complex
Scrubber Area Units 1 and 2	34° 34'51.52"	109° 16' 21.93"	Plant Site

2.1.1 Recoverable Water Reservoir

The Recoverable Water Reservoir (RWR) is comprised of two cells, the East RWR and the West RWR. References to the RWR in this permit apply to both the East RWR and West RWR unless specified otherwise. This reservoir was originally comprised of two cells having a combined storage capacity of approximately 1.1 million gallons. However, to allow construction of emission control equipment on the southern portion, the reservoirs have been modified as follows: the southern half of the original reservoir has been backfilled and the remaining northern half of each cell has a storage capacity of 262,500 gallons, with a total capacity for both cells of 525,000 gallons.

The average daily flow into the cells is 125 gallons per minute (gpm) and wastewater can reportedly be reclaimed at a rate of 515 gpm. The reservoir receives wastewater with low dissolved solids content that is ultimately reused for the primary water treatment system. Wastewater received at this impoundment includes dilute and low conductivity start-up demineralizer rinse water, zeolite softener brine rinse water, sand filter backwash, liquid effluent from an oil/water separator, effluent from the yard area sump, wastewater from the stand pipe drains, start-up liquid wastewater, and condensate system dump.

2.1.2 Cooling Tower Blowdown Reservoir

The Cooling Tower Blowdown Reservoir (CTBR) collects blowdown water from two mechanical draft cooling towers. The blowdown water is reused for the sulfur dioxide (SO_2) absorber, ash, and dust suppression systems in the coal piles. As an alternate mode of operation, blowdown water may be directed to the Wastewater Reservoir by means of an existing piping system or by overflow of the weir from the CTBR. In addition, up to 800 gpm of raw well water may be introduced to the CTBR to reduce chloride levels.

2.1.3 Wastewater Reservoir

The Wastewater Reservoir is used to collect all non-recyclable wastewater from the following sources: floor and equipment drains in the chemical feed area; a sump located in the water treatment building; zeolite softener brine; oily waste tank overflow that collects wastewater from floor drains in the turbine lube oil and condenser areas, shop and warehouse, bearing cooling water, and condensate storage tank overflows; boiler waste chemical flushes; a sump located in the yard area that receives boiler bottom ash hopper emergency dumps, air preheater washes, fire protection system drains, ash tank overflow, auto and heavy equipment shop drains, and stormwater; and emergency overflows from the CTBR and the RWR.

Wastewater from this reservoir is used to flush the SO_2 Absorber discharge lines and then is discharged to the Evaporation Pond or may also be discharged directly to the Evaporation Pond.

2.1.4 Coal Yard Retention Pond

The Coal Yard Retention Pond (CYRP) receives water from a collection system that includes discharges from the coal yard sumps.

2.1.5 Concrete Lined Overflow Containment Area

The Concrete Lined Overflow Containment (CLOC) Area has been constructed adjacent to the east side of the Wastewater Reservoir and it is designed to contain overflow from the Wastewater Reservoir.

2.1.6 Yard Collection Ditches

The Yard Collection Ditches convey ash process water, any area rinse water, including water from the heavy equipment and the auto washout area, any accidental leaks from tank or pipe breaks, water from the fire system protection drains, and storm water runoff from south of the plant and from the main plant area to a common sump. The Yard Ditch Collection system includes: (1) the Main Yard Ditch that runs north and south, (2) the North Yard Ditch that runs east and west, and (3) two smaller ditches that run east and west. Both the North Yard Ditch and the two smaller ditches drain into the Main Yard Ditch. All water collected in the Main Yard Ditch is directed to the yard sump, which normally discharges to the Wastewater Reservoir and is ultimately disposed of in the Evaporation Pond as described below in Section 2.1.7. The yard sump can alternatively discharge to the Recoverable Water Reservoir for reuse in the primary water treatment system.

Selenium and chromium concentrations exceeding ambient levels have been detected in the uppermost aquifer beneath this area. Sources of the contamination were leaks from tanks, unlined or damaged drainage ditches, and piping ruptures in the wastewater lines in the main plant area. In March 1991, 11 soil borings were drilled to depths of 100 to 140 feet below ground surface. Selenium and chromium concentrations were present below the soil remediation levels (SRLs). As part of SRP's corrective action plan, the unlined drainages were lined with concrete and the lined drainages were upgraded and repaired. Those upgraded drainages are called the Yard Ditch.

2.1.7 Evaporation Pond

The Evaporation Pond receives all current non-recyclable plant wastewater that includes: discharge from the Wastewater Reservoir; the Flue Gas Desulfurization (FGD) material from the SO_2 absorbers; ash process water and any area rinse water; and stormwater runoff including that from the Ash Disposal Area. The non-recyclable plant wastewater and FGD material are piped to the Evaporation Pond in one of two aboveground pipes. The lined Yard Ditch collects ash process water and any area rinse water. It drains to a common sump for reuse or disposal to the Evaporation Pond.

The Evaporation Pond is located approximately 1.5 miles southwest of the main plant area in a broad valley. Carrizo Wash is located about 4 miles north of the pond. The reservoir is unlined and has a compacted, engineered earth-fill dam approximately 60 feet high, 3,300 feet long, and 60 feet wide, at the crest along the lower end of the valley. This dam is regulated by the Arizona Department of Water Resources (ADWR).

The dam has filter drain zones and two toe drains. Seepage shall be collected in a sump located along the toe of the dam and is pumped back into the pond. Any overflow from the sump shall be collected in a clay-lined catchment. The flow rate into the sump shall be no greater than 100 gpm.

2.1.8 Northeast Retention Pond

The Northeast Retention Pond is used to collect stormwater runoff from the northern-central plant area, ash handling area, and the dead and active coal storage piles. Stormwater runoff from the northern-central plant area is conveyed to the Northeast Retention Pond directly by an unlined ditch known as the Yard Stormwater Collection Ditch. Stormwater runoff from ash handling area and the dead and active coal storage piles is delivered directly to the retention pond from the Coal Pile Area Ditch. The Coal Pile Area Ditch is also unlined.

2.1.9 Ash Disposal Landfill

The Ash Disposal Landfill receives dry bottom ash, dry fly ash, and other occasional plant process material as described in Section 2.3.6. Bottom ash and fly ash from the main plant area is hauled by truck for disposal at the Ash Disposal Landfill. Disposal of these materials shall be in accordance with Section 2.3.6 of this permit.

Ash is covered with native soil (minimum 6 inches), which is mostly Chinle clay. The landfill has a disposal capacity of approximately 13,300,000 cubic yards with additional vertical capacity available dependent on plan operating conditions and disposal needs. The Ash Disposal Landfill is located in the same drainage area as the Evaporation Pond and is located approximately 0.5 miles east-southeast at a higher elevation than the Evaporation Pond.

2.1.10 Solid Waste Landfill

The Solid Waste Landfill is an earth-fill landfill that is approximately 20 acres of active area. The entire area permitted for landfill use is approximately 80 acres. The landfill receives solid waste refuse such as paper products, construction and machining equipment debris, and empty aerosol and product containers. A separate section of the landfill is used for disposal of asbestos containing material (ACM). At the end of the operational day, all waste is covered with native soil (minimum 6 inches).

2.1.11 Fire Training Area

The Fire Training Area is used for training during firefighting exercises. Training exercises occur approximately six times per year. In the past, diesel fuel was poured on wooden pallets and then burned on a concrete pad. The fire was extinguished with either foam or water. Any runoff leaving the concrete pad would contact the surrounding soil. SRP discontinued the use of diesel as a fuel and shall not use it in the future. Currently, propane torches are used to set wooden pallets on fire on the concrete pad. Fires are now extinguished with foam, powders, or water.

2.1.12 Ash Slurry Settling Ponds (Inactive)

In the past, non-recyclable plant wastewater and SO_2 scrubber sludge/fly ash slurry were piped to the Ash Slurry Settling Ponds (situated within the Evaporation Pond BADCT area), where the solids were allowed to settle out and solidify and the clear water drained to the pond. Due to a new coal source in 2006, fly ash is no longer purposely slurried with the scrubber sludge and the Ash Slurry Settling Ponds (Inactive) are no longer used.

2.1.13 Exempt and General Permitted Facilities

There are six facilities associated with the Coronado Generating Station that are eligible for either exemptions or general permits, and therefore are not included as discharging facilities in this Aquifer Protection Permit. A summary of the facilities and their regulatory status is provided below:

Facility	Regulatory Status	Description
Reservoir A	Exempt – A.R.S. § 49-250(B)(6)	Facilities solely used for storage of groundwater.
Reservoir B	Exempt – A.R.S. § 49-250(B)(6)	Facilities solely used for storage of groundwater.
Reservoir C	Exempt – A.R.S. § 49-250(B)(6)	Facilities solely used for storage of groundwater.
Northwest Retention Pond	Exempt – A.R.S. 49-250(B)(10)	Surface impoundments used solely to contain storm runoff.
Southeast Retention Pond	Exempt – A.R.S. § 49-250(B)(10)	Surface impoundments used solely to contain storm runoff.
Sewage Pond	Exempt - General Permit – A.A.C. R18-9-A301(A) and A.A.C. R18-9-B301(I)	Type 1.09 - Sewage treatment facility with flows less than 20,000 gpd, if operated and maintained in compliance with general permit conditions.

APP Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 1,800,000 gallons per day (gpd). If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under the rule.

Solid Waste Annual Registration and Disposal Fees [A.R.S. §§ 49-747, 49-836]

The annual registration fees for the Solid Waste Landfill is established by A.R.S. § 49-747 and A.A.C. R18-13-2102 and 2103. The solid waste disposal fees for the Solid Waste Landfill is established by A.R.S. § 49-836, based on the amount of waste landfilled. The fees are payable to ADEQ each year.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated closure and post-closure cost is $47,016,191.00. The financial assurance mechanism was demonstrated through A.A.C. R18-9-A203C(1), Self-assurance.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The best available demonstrated control technology (BADCT) designs for the discharging facilities listed in Section 2.1 shall be based on the existing construction design, operation and maintenance procedures. Site specific characteristics are part of the BADCT for the Evaporation Pond, Ash Slurry Settling Ponds, and the Ash Disposal Landfill. BADCT for this facility shall also include water conservation through recycling, recovery, and reuse of industrial wastewater to decrease raw water needs. The BADCT for each facility is described based on current condition unless indicated otherwise. The BADCT for each discharging facility shall be maintained as described in this permit. Any modifications to the approved BADCT shall be submitted to ADEQ for approval prior to construction or upgrade of a new or existing feature.

2.2.1 Engineering Design

2.2.1.1 Recoverable Water Reservoir

The RWR is comprised of two cells. This reservoir was originally comprised of two cells having a combined storage capacity of approximately 1.1 million gallons. However, in order to allow construction of air emission control equipment on the southern portion of the reservoir, the reservoirs shall be modified as follows: the southern half of the original reservoir has been backfilled and the remaining northern half of each cell shall have a storage capacity of 262,500 gallons, with a total capacity for both ponds of 525,000 gallons, which shall include 2 feet of freeboard. Each cell has the approximate dimensions of 60 feet by 50 feet and side slopes of 3.5(H):1(V). The liner system consists of a 60-mil HDPE liner underlain by geotextile fabric over the existing 4-inch-thick rubberized asphalt installed in 2-inch layers. Joints of the second lift overlap the joints of the first lift by at least 4 feet. The asphalt shall be coated with a rubberized asphalt chip seal. The maximum permeability of the liner system shall be no greater than 0.01 ft/yr (10^{-8} cm/sec). Each cell is constructed with a weir that directly connects to the Wastewater Reservoir. The purpose of this overflow system shall be to immediately drain any wastewater out of the Recoverable Water Reservoir and into the Wastewater Reservoir in the event that the water level reaches 2 feet below the top of each cell.

An oil/water separator shall be used to segregate the water from the oil and grease prior to discharging the liquid effluent to this reservoir. The average effluent flow rate from the oil/water separator to the Recoverable Water Reservoir shall not exceed the design capacity of the oil/water separator. The oil/water separator shall be operated to produce an effluent quality with a concentration of oil and grease less than 15 milligrams per liter (mg/l).

2.2.1.2 Cooling Tower Blowdown Reservoir

The CTBR shall have a capacity, after allowing 6 inches of freeboard of approximately 2.06

million gallons. The reservoir is approximately 256 feet by 164 feet and side slopes of approximately 16 degrees. The liner system consists of a 60-mil HDPE liner underlain by geotextile fabric over the existing 4-inch-thick rubberized asphalt installed in 2-inch layers. Joints of the second lift overlap the joints of the first lift by at least 4 feet. The asphalt is coated with a rubberized asphalt chip seal. The maximum permeability of the liner system shall be no greater than 0.01 ft/yr (10^{-8} cm/sec). A 2-inch perforated PVC collection pipe runs underneath the geotextile fabric above the asphalt liner, along the centerline of the reservoir. Collection lines terminate into a 30"L x 6"W x 6"D PVC collection sump. Any accumulated water shall be pumped back to the surface. The integrity of the pneumatic pumping system shall be monitored on a monthly basis. This reservoir was constructed with a weir that directly connects to the Wastewater Reservoir. The purpose of this overflow system is to immediately drain any wastewater out of the CTBR in the event that the water level reaches 6 inches below the top of the reservoir.

2.2.1.3 Wastewater Reservoir

The Wastewater Reservoir has dimensions of approximately 256 feet by 171 feet and side slopes of 3.5(H):1(V). The approximate total storage capacity of the reservoir is 1.5 million gallons, which shall include 2 feet of freeboard required under this permit. The constructed design of the liner system from top to bottom is as follows: an 80-mil high-density polyethylene (HDPE) liner, 4-inch-thick layer of rubberized asphalt concrete that has a maximum permeability of 0.01 feet per year (ft/yr) or 10^{-8} centimeters per second (cm/sec); 12-inch-thick layer of compacted limestone; a layer of geotextile fabric; drainage system of 3-inch perforated pipe within an aggregate fill that drains into a collection sump; and, 12-inch layer of compacted clay (Chinle Frm.).

The drainage system is designed to drain to a galvanized, concrete bottom sump that is approximately 4 feet in diameter and 17 feet deep. The holding capacity of the collection sump is approximately 1,600 gallons. This drainage system is equipped with an automatic switch that turns on a pump if the water level reaches a predetermined height ("high level") in the sump. The pump delivers the wastewater back into the Wastewater Reservoir until the water level reaches a predetermined "low level" in the sump. Once the water level is at the "low level", the pump automatically shuts off.

In order to prevent exceedance of the 2-foot freeboard for the Wastewater Reservoir and overflow into a CLOC area, automatic level control that automatically start and stop the wastewater pumps depending on the water level in the Wastewater Reservoir, have been installed. Additionally, visual and audible alarms to alert on-site operators of a high water level condition in the Wastewater Reservoir have been installed.

2.2.1.4 Coal Yard Retention Pond

The Coal Yard Retention Pond (CYRP) receives water from a collection system that includes discharges from the coal yard sumps. The CYRP has a storage capacity of approximately 500,000 gallons which includes 2 feet of freeboard. The pond is double-lined with 60 mil HDPE liners separated by a 3/8 inch HDPE geogrid. The liner is underlain by compacted native soil. A 1 foot long by 1 foot wide by 1 foot deep concrete basin is located in the approximate center of the pond.

2.2.1.5 Concrete Lined Overflow Containment Area

The CLOC area has been constructed adjacent to the east side of the Wastewater Reservoir and it is designed to contain overflow from the Wastewater Reservoir. The dimensions of the CLOC area are approximately 350 feet long, 34 feet wide and 7 feet deep. In the event of a discharge in the CLOC area, the captured water in the CLOC area shall be pumped back into the Wastewater Reservoir as soon as practicable.

2.2.1.6 Yard Collection Ditches

The Yard Collection Ditches are lined with concrete and convey discharges to a common sump. The Yard Collection Ditch system includes: - (1) the Main Yard Ditch that runs north and south, sections of which consist of below grade concrete pipe, (2) the North Yard Ditch that runs east and west, and (3) two smaller ditches that run east and west, sections of which consist of below grade concrete pipe. The Main Yard Ditch and the North Yard Ditch have a trapezoidal cross section approximately 23 feet wide at the topand 7 feet wide at the bottom. The Main Yard Ditch is approximately 800 feet in length. The North Yard Ditch is approximately 150 feet in length. The two smaller ditches have a trapezoidal cross section approximately 6 feet wide at the top and 2 feet wide at the bottom and both are approximately 640 feet in length.

2.2.1.7 Evaporation Pond

The Evaporation Pond is unlined and has a compacted, engineered earth-fill dam ADWR ID Number 01-46, approximately 60 feet high, 3,300 feet long, and 60 feet wide at the crest along the lower end of the valley. The pond has a surface area of approximately 330 acres and a storage capacity in excess of 1.2 billion gallons or 3,700 acre-feet. Site-specific characteristics shall be the primary BADCT for the pond and are detailed in Section 2.2.2 (Site-specific Characteristics).

The dam has a drainage collection system that consists of filter drain zones and two toe drains on the east side and the west side of the dam. The drainage collection system uses perforated pipe and transferring conduits that are located in the base of the dam. The system is designed to allow water to pass through the drains into two manholes (east manhole and west manhole). The water movement provides a pressure relief system for the dam and is part of dam safety. Water retained behind the dam that seeps through is captured within the sump located along the toe of the dam and shall be pumped back into the pond on a weekly basis or more frequent as necessary to prevent overflow. The head of the water accumulated behind the dam determines the rate of flow into the sump. Any overflow from the sump drains into a clay lined catchment.

2.2.1.8 Northeast Retention Pond

The Northeast Retention Pond has a total storage capacity of approximately 9 million gallons (4.5 million gallons per cell). The pond cells are lined with 4-inch-thick rubberized asphalt coated with a rubberized asphalt chip seal. The maximum permeability of the liner system shall be no greater than 0.01 ft/yr (10^{-8} cm/sec).

2.2.1.9 Ash Disposal Landfill

The Ash Disposal Landfill is located in the same drainage area as the Evaporation Pond. It has a disposal capacity of approximately 27,000,000 cubic yards (cy). The landfill shall be constructed and maintained in accordance with the requirements in this permit. The Ash Disposal Landfill is located approximately 1.2 miles southwest of the plant and is constructed on the Chinle Frm. and at a higher elevation than the Evaporation Pond. Site-specific characteristics shall be the primary BADCT for the landfill and are detailed in Section 2.2.2 (Site-specific Characteristics).

2.2.1.10 Solid Waste Landfill

The Solid Waste Landfill is an earth-fill landfill, approximately 20 acres in area. ACM is disposed of in about 3.5 acres located in the southwest corner of the landfill. The landfill shall be constructed and maintained in accordance with the requirements of this permit.

2.2.1.11 Fire Training Area

The Fire Training Area consists of a concrete pad that is approximately 150 feet by 80 feet and approximately 6 inches in thickness. It shall be inspected on a regular basis to maintain the pad free of cracks.

2.2.1.12 Ash Slurry Settling Pond(s) (Inactive)

The Ash Slurry Settling Ponds are situated within the Evaporation Pond BADCT area and no longer active discharging facilities. The total drainage area is approximately 2.98 square miles and runoff from this entire area is contained by low permeability sediments.

2.2.2 Site-specific Characteristics

Site specific characteristics (geology) are part of BADCT for the Evaporation Pond, inactive Ash Slurry Settling Ponds and Ash Disposal Landfill. These discharging facilities are located approximately 1.5 miles southwest of the main Plant Site and is underlain by exposed Chinle Formation, localized colluvium and a discontinuous this horizon of silty, clayey, unconsolidated sand. The Chinle, Moenkopi, Kaibab and Coconino Formations all underlie the CCR management complex. The Bidahochi Formation is not present.

The Chinle Formation at the CCR management complex is composed of claystone, mudstone, volcanic ash, siltstone with local beds of sandstone, conglomerate and evaporites. The clay contained within the Chinle Formation has an estimated permeability of 1×10^{-8} to 1×10^{-10} centimeters per second (cm/sec). The Chinle varies in thickness from approximately 160 to 240 feet. The underlying Moenkopi Formation is at least 75 feet thick.

The Chinle/Moenkopi constitutes the uppermost aquifer beneath the CCR management complex although the occurrence of groundwater is limited and can occur in thin, discontinuous sand and conglomerate lenses, principally near the Chinle/Moenkopi contact.

Groundwater occurring in the C-Aquifer is not in hydrologic connection locally with groundwater in the Chinle/Moenkopi.

2.2.3 Operational Requirements

If damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be promptly performed.

2.2.3.1 Facility Maintenance Inspections

1. The pollution control structures shall be inspected for the items listed in Section 4.2, Tables 1A through 1I and according to Section 2.5.2 (Facility/Operational Monitoring). If damage is identified during an inspection that could cause or contribute to an unauthorized discharge, proper repairs shall be promptly performed and documented according to Section 2.7.2 (Operation Inspection/Log Book Recordkeeping).
2. In accordance with the Compliance Schedule in Section 3.0,item 3.1, every 5 years the permittee shall complete a leak location survey using a sensitive electrical leak detection method (or comparable method) of each impoundment with a HDPE primary liner. If this survey identifies a probable liner leak; the liner (or relevant portion thereof) shall be cleaned and the leak location confirmed. All confirmed leaks shall be repaired promptly. Notify ADEQ's Groundwater Section 2 weeks in advance of performing liner testing.
3. In accordance with the Compliance Schedule in Section 3.0, item, 3.1, every 5 years the permittee shall clean out and conduct a visual inspection of each impoundment with an asphalt liner. If inspection results indicate a probable liner leak, necessary repairs shall be promptly performed on the liner system. Notify ADEQ's Groundwater Section 2 weeks in advance of performing liner testing.

2.2.3.2 Operation of Seepage Well OMW-1

Seepage well OMW-1 shall be used to monitor any seepage from the Evaporation Pond. This is accomplished by taking routine water level measurements according to Section 4.2, Table 3. The well was drilled to approximately 20 feet below ground surface and is located in the lowest point of the surface drainage, approximately 750 feet north of the edge of the dam.

2.2.3.3 Dam Safety Monitoring

The permittee shall comply with the ADWR Dam License Safety requirements and ADWR monitoring and reporting requirements for the Evaporation Pond Dam, ADWR ID Number 01-46. These reports shall be made available to ADEQ upon request.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

2.3.1 Operation and Maintenance Requirements for Wastewater Reservoirs

The permittee shall operate and maintain the wastewater reservoirs to the maximum extent practicable to prevent liner failure, uncontrollable leakage, overtopping, berm breaches, accidental spills, or other unauthorized discharges. The permittee shall not exceed the maximum storage capacity of any reservoir. The permittee shall maintain a minimum of 2 feet of freeboard in the Wastewater Reservoir, Recoverable Water Reservoir, and the Northeast Retention Pond and a minimum of 6 inches of freeboard in the Cooling Tower Blowdown Reservoir at all times during operation. The permittee shall maintain the seepage monitoring systems required by this permit and shall comply with the monitoring requirements specified in Section 2.5 (Monitoring Requirements) and Section 4.2, Table 4A (Discharge Monitoring for Wastewater Reservoirs).

2.3.2 Materials Authorized for Discharge to the Wastewater Reservoirs

The materials authorized for discharge to the wastewater reservoirs shall be restricted to CGS plant process wastewater as listed in Section 2.1 of this permit and shall not contain any organic solvents or other hazardous substances that are not associated with the aforementioned operations. In the event of an unauthorized discharge, the permittee shall initiate the contingency requirements described in Section 2.6.3.4 (Discharge of Unauthorized Materials to a Wastewater Reservoir or Drainage Ditches).

2.3.3 Materials Authorized for Discharge to the Yard Collection Ditch

The materials authorized for discharge to the Yard Collection Ditch shall be restricted to wastewater and process water generated from the plant. In the event of an unauthorized discharge, the permittee shall initiate the contingency requirements described in Section 2.6.3.4 (Discharge of Unauthorized Materials to a Wastewater Reservoir or Drainage Ditches).

2.3.4 Operation and Maintenance of the Oil/Water Separator

The permittee shall operate and maintain the oil/water separator to produce an effluent quality that meets performance standards. The influent to the separator shall not cause an exceedance of the pretreatment capacity of the oil/water separator. Sludge collected from the oil/water separator shall be adequately characterized and properly disposed of off-site in accordance with Federal, State, and local waste disposal rules and regulations. Waste manifests and disposal certificates shall be maintained in the facility records according to Sections 2.7.2 of this permit. The liquid effluent shall be discharge to the RWR. The permittee shall comply with the monitoring requirements specified in Section 2.5 (Monitoring Requirements) and Section 4.2, Table 4B (Discharge Monitoring for Oil/Water Separator).

2.3.5 Waste Authorized for Disposal at the Solid Waste Landfill

Solid wastes authorized for disposal at the solid waste landfill shall include construction debris (insulation, metal, wood, pipe, wire, rubber, plastic, treated lumber), ACM and typical domestic trash originating from the CGS plant.

The Solid Waste Landfill shall not receive the following wastes:

1. Any petroleum-contaminated soils exceeding non-residential SRLs for polyaromatic hydrocarbons (PAHs) and benzene, toluene, ethylbenzene, and xylenes (BTEX);
2. Municipal solid waste, as defined in 40 CFR 258.2, except for domestic trash originating from the CGS plant;
3. Household waste, as defined in A.R.S. § 49-701(14);
4. Special waste, as defined in A.R.S.§ 49-851(A)(5);
5. Bulk liquids and liquid waste, as defined in 40 CFR 258.28;
6. Hazardous wastes, including soils that exceed residential SRLs for contaminants that are

considered hazardous or can leach hazardous contaminants as defined in 40 CFR Part 261 and A.R.S. § 49-921(5);
7. Radioactive materials, as defined in A.R.S. § 30-651.14;
8. Regulated friable asbestos-containing material, as defined in 40 CFR 61.141;
9. Polychlorinated biphenyl (PCB), as defined in 40 CFR 761; and
10. Other wastes which are prohibited by federal, State, or regulation from disposal at non-municipal solid waste landfills.

2.3.6 Waste Authorized for Disposal at the Ash Disposal Landfill

Wastes authorized for disposal at the ash landfill include dry bottom ash, dry fly ash, wastewater treatment wastes, reactivator sludge, demineralizer resins, cooling tower sludge, sewage pond sludge, evaporation pond solids, and miscellaneous sump and pond clean out sludges originating from the CGS plant.

The Ash Disposal Landfill shall not receive the following wastes:
1. Any petroleum-contaminated soils exceeding non-residential SRLs for PAHs and BTEX;
2. Municipal solid waste, as defined in 40 CFR 258.2;
3. Household waste, as defined in A.R.S. § 49-701(14);
4. Special waste, as defined in A.R.S. § 49-851(A)(5);
5. Bulk liquids and liquid waste, as defined in 40 CFR 258.28;
6. Hazardous wastes, including soils that exceed residential SRLs for contaminants that are considered hazardous or can leach hazardous contaminants as defined in 40 CFR Part 261 and A.R.S. § 49-921(5);
7. Radioactive materials, as defined in A.R.S. § 30-651.14;
8. Regulated friable asbestos-containing material, as defined in 40 CFR 61.141;
9. PCB, as defined in 40 CFR 761; and
10. Other wastes which are prohibited by federal, State, or regulation from disposal at non-municipal solid waste landfills.

2.3.7 Operation and Maintenance of Surface Water Diversions

Surface water diversions shall be maintained to direct stormwater flows from a 100-year, 24-hour storm event away from the power plant site, wastewater reservoirs, and the ash and solid waste landfills.

2.4 Point(s) of Compliance [A.R.S. § 49-244]

The POC(s) are established by the following monitoring location(s):

POC Identification	POC Locations	Latitude North	Longitude West	Location
MW-78	Downgradient of Evaporation Pond, Ash Disposal Landfill and the Inactive Ash Slurry Settling Ponds.	34° 33' 29.3984"	109° 17' 08.3643"	CCR Management Complex
MW-59	Center of the Northern edge of the 640 acre Plant Site (existing)	34° 35' 07.05"	109° 16' 20.5"	Plant Site
MW-62	Northeast Corner of the 640 acre Plant Site (existing)	34° 35' 07.09"	109° 15' 40.0"	Plant Site
MW-66	Northwest Corner of the 640 acre Plant site (existing)	34° 35' 08"	109° 16' 46"	Plant Site
MW-67R	South of Unit 1 Cooling Tower	34° 34' 52.87173"	109°16' 25.31976"	Plant Site
Solid Waste Landfill	Theoretical point at the center of the dam on the downgradient edge for the Solid Waste Landfill	34° 34' 5.01"	109° 16' 57.02"	Southwest Corner of Plant Site

POC Wells	ADWR Number	Screen Interval (ft bgs)
MW-78	55-225244	295-385
MW-59	55-527310	165-225
MW-62	55-531512	125-150
MW-66	55-533101	145-175
MW-67R	55-227148	170-200

Monitoring requirements for each POC are listed in Tables 2B through 2E and 2G, and described in Sections 2.5.3 and 2.5.6. The Director may amend this permit to designate additional POCs if information on groundwater gradients or groundwater usage indicates the need.

The Director may amend this permit to designate additional POCs, if information on groundwater gradients or groundwater usage indicates the need.

2.4.1 Monitoring at Well MW-36

Groundwater monitoring well MW-36 is located between the Cooling Towers and northwest of the Fire Training Area at 34° 34' 57.5"N/109° 16' 26.7"W. Monitoring requirements for this well is listed in Section 4.2, Tables 2A.

2.4.2 Monitoring at Well MW-65

Groundwater monitoring well MW-65 is located in the Plant Site area at 34° 34' 43.04"N/109° 16' 18.08"W to monitor the contaminated perched water in the vadose zone. Monitoring requirements for this well is listed in Section 4.2, Tables 2F.

2.4.3 Monitoring at Seepage Well OMW-1

Groundwater monitoring seepage well OMW-1 is located at 34° 33' 40.0"N/109° 17' 51.07"W. This well monitors water levels measurements to assess if water is present in the well at the Evaporation Pond. If water is detected in the well, the permittee shall sample the fluid in the well for electrical conductivity (EC) and TDS according to Section 4.2, Table 3. If the AL is exceeded, the permittee shall follow the contingency actions outlined in Section 2.6.2.5.

2.5 Monitoring Requirements [A.R.S. § 49-243(B) and (K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Monitoring shall commence the first full monitoring period following permit issuance. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

A representative sample of the wastewater shall be collected and analyzed in accordance with the monitoring requirements listed in Section 2.5.

2.5.1.1 Compliance Discharge Monitoring

In accordance with Section 4.2, Tables 4A and 4B, compliance discharge monitoring shall be conducted at the following areas:

1. East and West Recoverable Water Reservoir
2. Cooling Tower Blowdown Reservoir
3. Wastewater Reservoir
4. Evaporation Pond
5. Oil/Water Separator
6. Evaporation Pond Sump

The permittee shall conduct compliance discharge monitoring every five years for the parameters specified in Tables 4A and 4B. Representative samples shall be collected for analysis in accordance with Section 2.5. The permittee shall submit the results in that year's Annual Report according to Section 2.7.4.2 (Annual Report).

2.5.1.2 Boiler Flush Discharge Monitoring

The permittee shall monitor the waste generated from boiler chemical flushes prior to disposal in the Wastewater Reservoir to determine if it is classified as hazardous waste. The waste generated from the flush shall be sampled and analyzed for hazardous waste metals using EPA's Toxicity Characteristic Leaching Procedure (TCLP) test method and for pH. If the results indicate the waste is classified as hazardous waste, the wastewater from the flush shall be properly disposed at a permitted hazardous waste Treatment, Storage, and Disposal (TSD) facility or treated in tanks or containers until confirmatory samples indicate that the wastewater is no longer hazardous. Once the waste is determined not to be hazardous waste, it may be disposed of at the Wastewater Reservoir, which ultimately discharges to the Evaporation Pond. Any waste generated from the treatment process that is classified as a hazardous shall be properly disposed of at a permitted hazardous waste TSD facility. The permittee shall submit the results of the monitoring in that year's Annual Report according to Section 2.7.4.2 (Annual Report).

2.5.2 Facility / Operational Monitoring

2.5.2.1 Wastewater Containment Structure Monitoring

The permittee shall inspect all wastewater containment structures including the RWRs, CTBR, Wastewater Reservoir, Evaporation Pond, and Northeast Retention Pond to verify that all systems are functioning properly. At a minimum, the reservoirs shall be inspected for the performance standards and at the frequency listed in Section 4.2, Tables 1A through 1J. The permittee shall also inspect the Evaporation Pond and Northeast Retention Pond after any significant rainfall or storm event.

The findings/results of the wastewater containment structure monitoring and any repair procedures, methods, and materials used to return the reservoir(s) or system(s) to operational status shall be documented in the inspection log book according to Section 2.7.2 (Operation Inspection/Log Book Recordkeeping). These reports shall be available at the site for review by ADEQ, if requested.

2.5.2.2 Yard Collection Ditch

The permittee shall inspect the Yard Collection Ditch to verify that the ditch is operated properly and as designed. At a minimum, the ditch shall be inspected for the performance standards listed in Section 4.2, Table 1F. Inspections shall be performed at least monthly, after any significant rainfall or storm event, and after sediment/ash removal. The ditch shall be maintained to ensure the system is functioning properly and to ensure the ditches are not used for the storage of wastes.

The findings/results of the inspection and any repair procedures, methods, and materials used to return the drainage system(s) to operational status shall be documented and recorded in the inspection log book according to Section 2.7.2 (Operation Inspection/Log Book Recordkeeping). These reports shall be available at the site for review by ADEQ upon request.

2.5.2.3 Ash Disposal Landfill and Solid Waste Landfill

The permittee shall inspect the Ash Disposal Landfill and the Solid Waste Landfill to verify that the landfills are operated properly and as designed. At a minimum, the landfill shall be inspected for the performance standards listed in Section 4.2, Table 1G. Inspections shall be performed for the landfill areas at least monthly and after any significant rainfall or storm event.

The findings/results of the landfill monitoring and any repair procedures, methods, and materials used to return the landfill to operational status shall be documented and recorded in the inspection log book according to Section 2.7.2 (Operation Inspection/Log Book Recordkeeping). These reports shall be made available at the site for review by ADEQ upon request.

2.5.2.4 Solid Waste Landfill Methane Gas Monitoring

1. A methane monitoring program shall be implemented in accordance with the *CGS Solid Waste Landfill Gas Monitoring Plan*, dated December 2011.
2. The permittee shall operate and maintain methane gas monitoring equipment to ensure that the standards of 40 CFR § 257.3–8 are met. Such routine methane monitoring shall include monitoring the gas probes installed around the Solid Waste Landfill footprint as shown on Figure F-1 of the Gas Monitoring Plan.
3. The permittee must ensure, in accordance with 40 CFR § 257.3–8, that the concentration of methane gas does not exceed:
    a. Twenty-five percent (25%) of the lower explosive limit for the gases in facility structures (excluding gas control or recovery system components), and
    b. The lower explosive limit for the gases at the property boundary.
4. If a methane gas exceedance occurs at facility structures or at the facility property boundaries, as described above, the permittee shall immediately report the exceedance to ADEQ Solid Waste Unit as specified in Section 2.7.4.1 (Methane Gas Exceedance Reporting).
5. The permittee shall initiate an investigation followed by corrective actions to resolve any problems identified by the investigation that may have led to an LEL exceedance. To implement any corrective action the permittee shall obtain prior approval from ADEQ.

2.5.2.5 Fire Training Area

The permittee shall inspect the Fire Training Area to verify that the concrete pad is free of cracks or any pathways for migration. At a minimum, this area shall be inspected for the performance standards listed in Section 4.2, 1I. Inspections shall be performed at least bi-monthly (once every 2 months).

The findings/results of the Fire Training Area monitoring and any repair procedures, methods, and materials used to return the landfill to operational status shall be documented and recorded in the inspection log book according to Section 2.7.2 (Operation Inspection/Log Book Recordkeeping). These reports shall be made available at the site for review by ADEQ, if requested.

2.5.2.6 Ash Slurry Settling Ponds (Inactive)

The permittee, during the remaining active life of this facility, shall inspect Ash Slurry Settling Ponds to verify that the ponds are operated properly and as designed. At a minimum, the ponds shall be inspected for the performance standards listed in Section 4.2, Table 1H. Inspections shall be performed for the pond areas at least monthly and after any significant rainfall or storm event.

2.5.3 Groundwater Monitoring and Sampling Protocols

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, and conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

Static water levels shall be measured and recorded prior to sampling. The permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity. Pump intake shall be in the screened interval and shall be noted. Drawdown must be minimal and documented. The sample shall be collected from the pump's discharge.

Replacement POC well MW-67R shall meet the following conditions prior to each sampling event:

- The wells should be pumping continuously for at least one day,
- Collect water levels from nearby wells, if available, to determine the depth of the water table to ensure the water table has been depressed by the pumping from the POC well, and
- Ensure field samples (pH, temperature, and specific conductance) are stable

2.5.3.1 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is 50 feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.4 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.5 Seepage Well (OMW-1) Monitoring at Evaporation Pond

The permittee shall take water level measurements in seepage well OMW-1 semi-annually and in accordance with Section 2.6.2.5. Water level measurements are taken to assess if water is present in the well.

If water is detected in the well, the permittee shall sample the fluid in the well for electrical conductivity (EC) and TDS according to Section 4.2, Table 3. If the AL is exceeded, the permittee shall follow the contingency actions outlined in Section 2.6.2.5.

The results of the monitoring shall be documented in the Annual Report in Section 2.7.4.2.

2.5.6 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.7 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Protection Value Stream for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements [A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plan.

Any AL that is exceeded or any violation of an AQL, discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Alert Levels for Except Freeboard Operational Conditions

1. If an operational performance level (PL) listed in Section 4.2, Table 1A, 1B, 1C, 1D, 1E, 1F, 1H and 1I has been observed or noted during required inspection and operational monitoring, such that the result could cause or contribute to an unauthorized discharge, the permittee shall immediately investigate to determine the cause of the condition. The investigation shall include the following:
   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the operational performance condition.
   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences.
2. The PL exceedance, results of the investigation, and any corrective action taken shall be reported to the Groundwater Protection Value Stream, within 30 days of the discovery of the condition. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5 and any necessary contingency measures to resolve problems identified by the investigation which may have led to a PL being exceeded. To implement any other corrective action the permittee may choose to obtain prior approval from ADEQ according to Section 2.6.6.

2.6.2.2 Exceeding of Alert Levels Set for Freeboard

In the event that freeboard performance levels required by Section 4.2 Tables 1A, IB, IC and IE in a surface impoundment are not maintained, the permittee shall:

1. As soon as practicable, cease or reduce discharging to the impoundment to prevent overtopping. Remove and properly dispose or recycle to other operations the excess fluid in the reservoir until the water level is restored at or below the permitted freeboard limit.
2. Within 5 days of discovery, evaluate the cause of the incident and adjust operational conditions or identify design improvements to the affected system as necessary to avoid future occurrences.
3. Within 30 days of discovery, initiate repairs to the affected system, structure, or other component as necessary to return the system to compliance with this permit, or remove the affected system(s) from service as specified in Section 2.8 (Temporary Cessation) and Section 2.9 (Closure) of this permit. Record any repair procedures, methods, and materials used to restore the facility to operating condition in the facility log/recordkeeping file.
4. If design improvements are necessary, submit an amendment application within 90 days of discovery.
5. The facility is no longer on alert status once the operational indicator no longer indicates that the freeboard performance level is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.3 Exceeding of Alert Levels Set for Cap and Structural Integrity for the Solid Waste and Ash Disposal Landfill

In the event that the performance standards set in Section 4.2, Table 1G, for cap and structural integrity of the landfill (active or closed benches or crests) are not met, the permittee shall perform the necessary repairs to return the area to the proper operational or closed status. At a minimum, the permittee shall:

1. Document the landfill monitoring activities, inspection results, and all repair procedures, methods, and materials used to return the systems to operational status in the Annual Report described in Section 2.7.4.2.
2. Maintain a log of the landfill monitoring activities and related information at the facility for 10 years from the date of inspection and available for review by ADEQ personnel upon request.

2.6.2.4 Exceeding of Alert Levels Set for the Wastewater Reservoir Sump

2.6.2.4.1. Alert Level 1 (AL1) Set for Leakage Rate in Wastewater Reservoir Sump

If the AL1 for the leakage rate in the Wastewater Reservoir sump specified in Section 4.2, Table 1J has been exceeded, the permittee shall:

a. Increase monitoring in sump to daily until rate is below AL1.
b. Assess the cause of excess fluid in the sump through testing or a liner evaluation as necessary to correct the exceedances such that the daily rate of fluid collected in the sump is below AL1.
c. Within 5 days of discovery, notify Groundwater Protection Value Stream in accordance with Section 2.7.3 (Permit Violation and AL Status Reporting).
d. Within 30 days of discovery, submit a written report documenting the steps taken to correct the AL exceedance (if any were necessary) to the ADEQ Groundwater Value Stream according to Section 2.7.3(2).

2.6.2.4.2. Alert Level 2 (AL2) Set for Leakage Rate for the Wastewater Reservoir Sump

If the AL2 for the leakage rate in the Wastewater Reservoir sump specified in Section 4.2, Table 1J has been exceeded, the permittee shall:

a. Within 5 days of discovery, notify Groundwater Protection Value Stream in accordance with Section 2.7.3 (Permit Violation and AL Status Reporting).

b. Within 10 days of discovery, collect a sump sample for analysis to compare with waste characterization for the Wastewater Reservoir to determine if water in sump is due to liner leakage.
c. Immediately cease or reduce discharge to the pond, whichever is necessary to correct the exceedance.
d. Within 15 days of discovery, assess the condition of the liner system using visual methods, electrical leak detection, or other methods as applicable.
e. Within 30 days of exceeding the AL2, submit a report to ADEQ's Groundwater Protection Value Stream as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). The report shall address problems identified from the assessment of the liner system, source of the fluid, and any other actions taken to minimize the future occurrences. The report shall include the results of the liner evaluation, methods used to locate the leak, the repair procedures implemented to restore the liner to optimal operational status, and other information necessary to ensure that future occurrence of the incidence will be minimized. ADEQ may request additional action if necessary to address problems identified from the assessment of the liner system and other applicable repair procedures.
f. Within 30 days of exceeding the AL2, submit for approval to ADEQ's Groundwater Protection Value Stream, a corrective action plan to address problems identified from the assessment of the liner system if problems are not corrected in Item (e) above. At the direction of ADEQ, the permittee shall implement the approved plan.
g. Within 30 days of completion of corrective actions and no later than 90 days after receiving approval to implement the corrective action plan, submit to ADEQ's Groundwater Protection Value Stream, a written report as specified in Section 2.6.6 (Corrective Actions).
h. The facility is no longer on alert status once the operational indicator no longer indicates that the AL2 is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.5 Alert Levels Set for Seepage Well Monitoring for OMW-1 at the Evaporation Pond

If an AL (presence of water) in the seepage well is exceeded, the permittee shall:

1. Within 5 days of discovery, notify the Groundwater Protection Value Stream of the incidence in accordance with Section 2.7.3 and immediately increase the monitoring frequency to bi-weekly.
2. Within 10 days of discovery, collect a water sample from the seepage well and the pond and analyze for the parameters listed in Section 4.2, Table 3.
3. If an AL listed in Section 4.2 Table 3, is exceeded, then the permittee shall immediately initiate an evaluation of the source of the exceedance. If the analytical data or the evaluation indicates that the water present in the seepage monitoring well may be due to seepage from the Evaporation Pond rather than from precipitation or runoff, the permittee shall develop a corrective action plan within 60 days of the exceedance and shall submit the plan to Groundwater Protection Value Stream for approval. At a minimum, the plan shall propose an evaluation of the discharge impact area and the installation of additional monitoring equipment (such as an intercept system to control migration), if required to mitigate migration of contaminants.
4. Within 30 days following completion of the approved corrective action plan, the permittee shall submit a report to Groundwater Protection Value Stream that summarizes all actions taken and the results of the evaluation of the discharge impact area, potential impact to Carrizo Wash, and items specified in Section 2.6.6 (Corrective Actions).
5. Upon review of the report, ADEQ may request additional monitoring, additional monitor wells or seepage wells, studies, or remedial actions beyond those specified in this permit.

6. If there is no water present in OMW-1 for four consecutive measurements, the permittee may reduce the frequency of monitoring to semi-annually.

2.6.2.6 Exceeding of Alert Levels Set for Discharge Monitoring

Discharge monitoring is required under the terms of this permit.

1. If an AL set in Section 4.2, Table 4A has been exceeded, the permittee shall immediately investigate to determine the cause of the AL exceedance. The investigation shall include the following:
   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL exceedance;
   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
   c. Sampling of individual waste streams composing the wastewater for the parameters being exceeded:
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation, which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Groundwater Protection Value Stream, along with a summary of the findings of the investigation, the cause of the AL exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.7 Exceeding of Alert Levels in Groundwater Monitoring

1. If an AL for a pollutant set in Section 4.2, Tables 2B through 2E, and 2G has been exceeded, the permittee shall conduct verification sampling within 10 days of becoming aware of an AL being exceeded.
2. If verification sampling confirms the AL being exceeded, the permittee shall increase the frequency of monitoring from semi-annually to quarterly. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation, which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency, under a permit amendment application, for approval by the Groundwater Section.
4. Within 30 days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Groundwater Protection Value Stream, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem in accordance with Section 2.7.3.
5. Upon review of the submitted report, the Department may require additional monitoring,

increased frequency of monitoring, amendments to permit conditions or other actions.

6. The increased monitoring required as a result of ALs being exceeded may be reduced to annually, if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.3 Discharge Limitations Violations

2.6.3.1 Oil/Water Separator Effluent

If the DL for oil and grease set in Section 4.2, Table 4B has been exceeded, the permittee shall clean out the oil/water separator and promptly perform repairs if necessary and to return the oil/water separator to proper working order in accordance with Section 2.3.4.

2.6.3.2 Unexpected Loss of Wastewater, Leakage, or Structure Failure

If there is unexpected loss of wastewater in a reservoir, or any other indication of leakage or failure of a wastewater containment structure, such that fluids are released to the vadose zone, the permittee shall take the following actions:

1. As soon as practicable, cease all discharges as necessary to prevent any further releases to the environment, including removal of any fluid remaining in the impoundment as necessary, and capture and containment of all escaped fluids.
2. Within 24 hours of discovery, notify Groundwater Protection Value Stream,
3. Within 24 hours of discovery of a failure estimate the quantity released, collect representative samples of the fluid remaining in affected impoundments and drainage structures, analyze sample(s) according to Section 4.2, Table 5 and report in accordance with Section 2.7.3 (Permit Violation and AL Status Reporting). In the 30-day report required under Section 2.7.3, include a copy of the analytical results and forward the report to Groundwater Protection Value Stream.
4. Within 15 days of discovery, initiate an evaluation to determine the cause for the incident. Identify the circumstances that resulted in the failure and assess the condition of the discharging facility and liner system. Implement corrective actions as necessary to resolve the problems identified in the evaluation. Initiate repairs to any failed liner, system, structure, or other component as needed to restore proper functioning of the discharging facility. The permittee shall not resume discharge to the facility until repairs of any failed liner or structure are performed.

   Repair procedures, methods, and materials used to restore the system(s) to proper operating condition shall be described in the facility log/recordkeeping file and available for ADEQ review. Record in the facility log/recordkeeping file the amount of fluid released, a description of any removal method and volume of any fluid removed from the impoundment and/or captured from the release area. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection / Log/Recordkeeping File).
6. Within 30 days of discovery of the incident, submit a report to Groundwater Protection Value Stream as specified in Section 2.7.3. Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within 60 days of discovery, conduct an assessment of the impacts to soil and/or groundwater resulting from the incident. If soil or groundwater is impacted such that it could or did cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to ADEQ, for approval, a corrective action plan to address such impacts, including identification of remedial actions and a schedule for completion of activities. At the approval of ADEQ, the permittee shall implement the approved plan.
8. Within 30 days of completion of corrective actions, submit to Groundwater Protection Value Stream, a written report as specified in Section 2.6.6 (Corrective Actions).
9. Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.3 Overtopping of a Reservoir

If overtopping of fluid from a permitted reservoir occurs, and results in a discharge pursuant to A.R.S. § 49-201(12), the permittee shall:

1. As soon as practicable, cease all discharges to the reservoir to prevent any further releases to the environment.
2. Within 24 hours of discovery, notify Groundwater Protection Value Stream.
3. Within 24 hours, collect representative samples of the fluid contained in the surface impoundment. Samples shall be analyzed for the parameters specified in Section 4.2, Table 5. Within 30 days of the incident, submit a copy of the analytical results to Groundwater Protection Value Stream.
4. As soon as practicable, remove and properly dispose of excess water in the reservoir until the water level is restored at or below the appropriate freeboard as described in Section 4.2, Table 5. Record in the facility log/recordkeeping file the amount of fluid released, a description of the removal method and volume of any fluid removed from the reservoir and/or captured from the release area. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection/LogBook/Recordkeeping File).
5. Within 30 days of discovery, evaluate the cause of the overtopping and identify the circumstances that resulted in the incident. Implement corrective actions and adjust operational conditions as necessary to resolve the problems identified in the evaluation. Repair any systems as necessary to prevent future occurrences of overtopping.
6. Within 30 days of discovery of overtopping, submit a report to ADEQ Groundwater Protection Value Stream as specified in Section 2.7.3(2) (Permit Violation and Alert Level Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within 60 days of discovery, and based on sampling in Item No. 3 above, conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the incident.
8. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, submit to ADEQ for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of ADEQ, the permittee shall implement the approved plan.
9. Within 30 days of completion of corrective actions, submit to ADEQ, a written report as specified in Section 2.6.6 (Corrective Actions). Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.3.4 Discharge of Unauthorized Materials to a Wastewater Reservoir or Drainage Ditch

Authorized discharges are specified in Section 2.3 (Discharge Limitations). If any unauthorized materials are discharged to a wastewater reservoir or drainage ditch, the permittee shall:

1. Immediately cease all unauthorized discharges to the reservoir(s) or ditch.
2. Within 5 days of discovery of the incident, notify ADEQ Groundwater Protection Value Stream as specified in Section 2.7.3 (Permit Violation and AL Status Reporting).
3. Within 10 days of discovery, perform an evaluation to identify the source of the material and cause for the unauthorized discharge. Based on the evaluation of the incident, adjust operational practices and/or repair any systems or equipment as necessary to prevent future unauthorized discharges and to resolve the problems identified in the evaluation.
4. Within 30 days of discovery, characterize the unauthorized material and contents of the affected reservoir or ditch and, if possible, evaluate the compatibility of the discharged material and the liner system of affected reservoir or ditch. If the liner is damaged or degraded by the unauthorized discharge, conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the incident.

If the soil has been adversely impacted, or if AWQS may be impacted at the POC(s), submit a corrective action plan to ADEQ's Groundwater Protection Value Stream within 60 days of discovery of the incident. The corrective action plan shall address problems identified in the assessment, including identification of releases to the environment, remedial actions and/or monitoring, and a schedule for completion of activities. At direction of ADEQ, the permittee shall implement the approved plan.

5. Within 90 days of a discharge of an unauthorized material, submit a report to ADEQ's Groundwater Protection Value Stream as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). Include a description of the actions performed in 1 through 4 listed above and a copy of the analytical results. Upon review of the report, ADEQ may request additional monitoring or remedial action.
6. Within 30 days of completion of corrective actions, submit to ADEQ's Groundwater Protection Value Stream, a written report specified in section 2.6.6 (Corrective Actions).

2.6.3.5 Discharge of Unauthorized Materials to the Ash Disposal Landfill and Solid Waste Landfill

Authorized discharges are specified in Section 2.3 (Discharge Limitations). If any unauthorized materials are discharged to the ash landfill, the permittee shall:

1. Immediately cease the disposal of the unauthorized materials to the landfill.
2. Within 5 days of discovery, notify ADEQ Groundwater Protection Value Stream as specified in section 2.7.3 (Permit Violation and AL Status Reporting).
3. Within 10 days of discovery, perform an evaluation to identify the source of the material and cause for the unauthorized discharge. Based on the evaluation of the incident, adjust operational practices and/or repair any systems or equipment as necessary to prevent future unauthorized discharges and to resolve the problems identified in the evaluation.
4. Within 30 days of discovery, characterize the unauthorized material and conduct an assessment of the impacts to the subsoil and/or groundwater resulting from the unauthorized discharge.

   If soil or groundwater is impacted, submit a corrective action plan to ADEQ's Groundwater Protection Value Stream within 60 days of discovery of the incident. The corrective action plan shall address problems identified in the assessment, including identification of releases to the environment, remedial actions and/or monitoring, and a schedule for completion of activities. At direction of ADEQ, the permittee shall implement the approved plan.
5. Within 90 days of a discharge of an unauthorized material, submit a report to ADEQ's Groundwater Protection Value Stream as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). Include a description of the actions performed in 1 through 4 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial action.
6. Within 30 days of completion of corrective actions, submit to ADEQ's Groundwater Protection Value Stream, a written report as specified in Section 2.6.6 (Corrective Actions).

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Tables 2B through 2E, and 2G has been exceeded, the permittee shall conduct verification sampling within 5 days of becoming aware of an AQL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to quarterly. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted

in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 90 days or a longer time period if agreed to by ADEQ that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
4. The permittee shall notify any downstream or downgradient users who may be directly affected by the discharge.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the Groundwater Protection Value Stream within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Groundwater Protection Value Stream within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to Groundwater Protection Value Stream within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 and actions identified in the approved contingency plan approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the Groundwater Protection Value Stream, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements
[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-monitoring Report Form (SMRF)

1. The permittee shall complete the Self-Monitoring Reporting Forms (SMRFs) provided by ADEQ, and submit the completed report through the myDEQ online reporting system or to the Groundwater Protection Value Stream.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter "not required" with an explanation on the SMRF and submit the report to ADEQ.
3. The tables contained in Section 4.2 list the monitoring parameters and the frequencies for reporting result on the SMRF:

    - Table 2A- Groundwater Monitoring
    - Table 2B- Groundwater Compliance Monitoring
    - Table 2C - Compliance Groundwater Monitoring
    - Table 2D - Groundwater Compliance Monitoring
    - Table 2E - Compliance Groundwater Monitoring
    - Table 2F- Monitor Well for Contaminated Perched Water
    - Table 2G - Groundwater Compliance Monitoring

    The parameters listed in the above-identified tables from Section 4.2 are the only parameters for which SMRF reporting is required.

4. Within the eSMRF comments fields, or in addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time;
6. Any other information required by this permit to be entered in the log book; and
7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection Value Stream in writing within 5 days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an AL exceedance.
2. The permittee shall submit a written report to the Groundwater Protection Value Stream within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
   a. Identification and description of the permit condition for which there has been a violation and a description of its cause;
   b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
   c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
   d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
   e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
   f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

2.7.4.1 Methane Gas Exceedance Reporting

The following notifications are required if there is a methane gas exceedance:

1. Within twenty-four (24) hours or one (1) business day of any methane gas exceedance where the gas concentration in facility structures exceeds twenty-five percent (25%) of the lower explosive limit or gas concentrations at the landfill boundary exceed the lower explosive limit, the permittee shall notify the ADEQ Solid Waste Unit.
2. Within seven (7) days of detection, the permittee shall place in the operating record a description of the steps taken to protect human health. A copy of this description shall be sent to the ADEQ Solid Waste Unit.
3. Within sixty (60) days of detection of any methane gas exceedance, a remediation plan shall be implemented and a copy of the plan placed in the operating record. A copy of the plan, accompanied by a notification that the plan has been implemented, shall be sent to the ADEQ Solid Waste Unit.

2.7.4.2 Annual Report

Each year, if the following requirements are met, the permittee shall submit an Annual Report to ADEQ. The report shall be divided into the following categories, if appropriate: Facility Maintenance Inspection Results from leak detection surveys, Detection of Seepage in Seepage Well OMW-1, results of Compliance Discharge Monitoring, results of Boiler Flush Discharge Monitoring, and Inactive Ash Slurry Settling Ponds Closure and Post-Closure Care Activities. The report shall contain the following sections with the specified information:

2.7.4.2.1 Leak Detection Inspections

This section of the report shall contain the following information:

a. Description of the sensitive electrical leak detection method (or comparable method) used for each impoundment with a HDPE primary liner.
b. Description of the results and conclusions for each impoundment with a HDPE primary liner.
c. For those impoundments with asphalt liners, provide a description of the material removed from the impoundments and the result of the inspection.

2.7.4.2.2 Seepage Well OMW-1

If water is present in Seepage Well OMW-1, this section shall be included in the Annual Report and shall contain the following information:

a. Description of the analytical results collected from Seepage Well OMW-1 as described in Section 4.2, Table 3.
b. If the reporting requirements specified in Section 2.6.2.5 has not occurred, the permittee shall provide the information required in Section 2.6.2.5 in this report.

2.7.4.2.3 Boiler Flush Discharge Monitoring

When Boiler Flush Discharge samples are collected in accordance with Section 2.5.1.2, the report shall include the following information:

a. Volume of waste generated from boiler chemical flushes
b. Results of waste characterization sampling
c. Discussion on where the waste was disposed
d. Copies of certified analytical laboratory results and associated chain-of-custody
e. If waste disposed to a permitted hazardous waste TSD, copies of hazardous waste disposal manifests.

2.7.4.2.4 Inactive Ash Slurry Settling Ponds Closure and Post-Closure Care Activities

1. This section of the report shall contain the following information during the closure phase of the Inactive Ash Slurry Settling Ponds:
    a. Summary of closure activities during the reporting period.
2. This section of the report shall contain the following information during the post-closure phase of the Inactive Ash Slurry Settling Ponds for the reporting period:
    a. Monitoring well MW-78 annual post-closure monitoring results
    b. Discussion on annual inspection results and repairs if deficiencies are observed, for the final cover system and stormwater controls.
    c. Discussion on MW-78 well annual inspection results for the well surface completion, sampling equipment, and repairs if deficiencies are observed.

2.7.4.3 Five (5) Year Compliance Discharge Monitoring Report

When discharge samples are collected, the report shall include results of compliance discharge monitoring and shall include the following information:

a. Summary of the analytical results
b. Discussion of any changes to the discharge
c. Discussion of any conclusions from evaluating the data
d. Summary discharge quality tables
e. Certified analytical laboratory reports and chain-of-custody

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4681

Or

Through the myDEQ portal accessible on the ADEQ website at:
http://www.azdeq.gov/welcome-mydeq

All documents required by this permit to be submitted to the Groundwater Protection Value Stream shall be directed to:

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4999

Arizona Department of Environmental Quality
Waste Programs Division
Solid Waste Unit
Mail Code:
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4136

2.7.6 Reporting Deadline

The following table lists the semi-annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30

The following table lists the annual reporting due date:

Monitoring conducted:	Report due by:
annual	January 30

The following table lists the five (5) year reporting due date:

Monitoring conducted:	Report due by:
Once every Five (5) years	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Protection Value Stream shall be notified within 15 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Groundwater Protection Value Stream before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Groundwater Protection Value Stream of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below. Submittal of SMRFs is still required; report "Temporary Cessation" in the comment section.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Protection Value Stream of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report "closure in process" in the comment section.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Protection, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3). Furthermore, the plan shall include the following specific activities:

If the closure plan achieves clean closure immediately, ADEQ Groundwater Value Stream shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.1.1 Fire Training Area Closure Activities

Upon closure of the Fire Training Area, the closure investigation shall include subsurface soil sampling. Soil sampling parameters shall be representative of the types of fuels or chemicals used, and the materials and wastes burned in the fire training exercise. At minimum, soil sampling for the area shall include TPH, Priority Pollutant Metals plus Barium, BTEX, and PAHs. Soil samples shall be taken around and underneath the concrete pad.

Any soils exceeding the GPL should be excavated and properly disposed or treated. After meeting GPLs, if soils left in place exceed any corresponding SRLs, then the permittee shall register with the Soil Repository Index and a Declaration of Environmental Use Restriction (pursuant to A.R.S. § 49-158) shall be filed with the county, or a risk assessment may be conducted pursuant to A.A.C. R18-7-201.

If the sample results are greater than the non-residential SRLs, but below residential SRLs, then the permittee has the option of removing all materials until soil is either below non-residential SRLs and filing a Declaration of Environmental Use Restriction (DEUR), removing all materials until soil is below residential SRLs, or a risk assessment may be conducted pursuant to A.A.C. R18-7-201 et seq.

Whichever option for remediation is chosen, the permittee shall comply with all other requirements specified in the Soil Remediation Standards Rule (A.A.C. R18-7-201 et seq.)

2.9.1.2 Recoverable Water Reservoir Closure Activities

Approximately the southern half of the east and west cells of the RWR have been backfilled during the modification of the RWR conducted in order to complete the installation of new air emissions control equipment. At the time of closure of the RWR the permittee shall conduct soil sampling from the entire footprint of the original RWR in accordance with a sampling plan approved by ADEQ. SRP shall submit the laboratory results of the soil sampling at the time of closure, including any previous sampling results. Based on the results of the soil sampling, additional soil sampling, and possibly groundwater sampling may be warranted to demonstrate closure of the RWR.

2.9.1.3 Inactive Ash Slurry Settling Ponds Closure Activities

In accordance with the Compliance Schedule in Section 3.0, the permittee shall initiate the approved closure plan included as Attachment 5 of the permit application and titled as *"Attachment 5: Ash Slurry Pond Closure Documents, Coronado Generating Station, St. Johns, Arizona"*, prepared by Haley & Aldrich, dated July2017.

The final cover system will consist of a compacted subbase overlain by a 40-mil linear low-density polyethylene (LLDPE) geo-membrane which will be capped by 12 inches of vegetative cover. The vegetative cover soils are specified to have a minimum permeability of 1x10-4 centimeters per second, which will allow adequate drainage characteristics towards discharge channels and allow for development of natural vegetation which will enhance evapotranspiration characteristics of the cover. The cover will be designed so ponding shall be minimized and stormwater will be channeled away from the site.

2.9.2 Landfill Closure Plan

The Closure activities shall be completed within 1.5 years following the beginning of closure. Following the closure construction, the owners/operators shall notify the ADEQ Solid Waste Unit through certification document, signed and sealed by an Arizona-registered Professional Engineer, that the closure has been completed in accordance with the approved Closure Plan, dated May 26, 2016, and the APP.

2.9.2.1 Solid Waste Landfill

In accordance with the approved Closure Plan, the permittee shall construct a final cover system consists of the following elements:

1. An eighteen (18)-inch infiltration barrier layer of soil with a maximum permeability of $1x10^{-5}$ centimeters/second
2. A twelve (12)-inch vegetative layer of soil for erosion control with a maximum permeability of $1x10^{-3}$ centimeters/second
3. Storm water run-on will be controlled by a drainage channel that routes water around the landfill.
4. Storm water run-off will be directed to a detention pond to the east of the landfill.

A closure cost estimate dated May 26, 2016, and sealed by Lawrence L. Tysiac, an Arizona registered professional engineer, was provided for the amount of $519,000 for 30 acres of the landfill. The permittee shall maintain financial capability throughout the life of the landfill, including closure and post-closure care, in accordance with the Compliance Schedule in Section 3.2.

2.9.2.2 Ash Disposal Landfill

In accordance with the approved Closure Plan, the permittee shall construct a final cover system consists of the following elements:

1. An eighteen (18)-inch infiltration barrier layer of soil with a maximum permeability of $1x10^{-5}$ centimeters/second
2. A twelve (12)-inch vegetative layer of soil for erosion control with a maximum permeability of $1x10^{-3}$ centimeters/second
3. Storm water run-on will be controlled by a natural ridgeline that deflects off-site water away from the landfill.
4. Storm water run-off will be directed to an on-site detention pond.

A closure cost estimate prepared by Haley & Aldrich, submitted July 25, 2017 , was provided for the amount of $11,400,000 for 200 acres of landfill. The permittee shall maintain financial capability throughout the life of the landfill, including closure and post-closure care, in accordance with the Compliance Schedule in Section 3.2.

2.9.3 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater

Protection Value Stream indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within 1 year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and/or
5. Further action is necessary to meet property use restrictions.
6. SMRF submittals are still required until Clean Closure is issued.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Quality Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-closure Plan

If a post-closure plan is required, a permittee shall describe post-closure monitoring and maintenance activities in a plan and submit it to the Water Quality Groundwater Section for approval. The plan shall include the following:

1. Duration of post-closure care;
2. Monitoring procedures to be implemented by the permittee, including monitoring frequency, type, and location;
3. Description of the operating and maintenance procedures to be implemented for maintaining aquifer water quality protection devices;
4. Schedule and description of physical inspections to be conducted at the facility following closure;
5. Estimate of the cost of post-closure maintenance and monitoring; and
6. Description of limitations on future land or water uses, or both, at the facility site as a result of facility operations.

2.10.2 Solid Waste and Ash Disposal Landfills Post-closure Plan

The permittee shall describe post-closure monitoring and maintenance activities for the Solid Waste and Ash Disposal Landfills, in plans and submit it to the Department for approval. The plans shall include:

1. Duration of the post-closure period (30 years shall be required unless otherwise approved by the department);
2. The monitoring procedure to be implemented by the permittee, including monitoring frequency, type and location(s);
3. A description of operating and maintenance procedures to be implemented for maintaining aquifer quality protection devices, such as final cover, monitoring wells, etc.;
4. A schedule and description of physical inspections to be conducted at the facility following closure;

5. An estimate of the cost of post-closure maintenance and monitoring; and
6. A description of monitoring, maintenance procedures to be implemented for maintaining security fencing and storm water management structures.

2.10.3 Inactive Ash Slurry Settling Ponds

The permittee shall describe post-closure monitoring and maintenance activities for the Ash Slurry Settling Ponds and submit it to the Department for approval. The plan shall include:

1. Duration of the post-closure period (30 years shall be required unless otherwise approved by the department);
2. The monitoring procedure to be implemented by the permittee, including monitoring frequency, type and location(s);
3. A description of operating and maintenance procedures to be implemented for maintaining aquifer quality protection devices, such as final cover, monitoring wells, etc.;
4. A schedule and description of physical inspections to be conducted at the facility following closure;
5. An estimate of the cost of post-closure maintenance and monitoring; and
6. A description of monitoring, maintenance procedures to be implemented for maintaining security fencing and storm water management structures.

2.10.4 Post-closure Completion

The permittee shall provide ADEQ with written notice that a post-closure plan has been fully implemented within 30 calendar days.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Protection Value Stream and a copy shall be submitted to the Solid Waste Unit for the landfill related compliance schedule items.

No.	Description	Due by:	Permit Amendment Required?
1	For the life of the facility every five (5) years all impoundments shall be inspected or tested using electrical testing procedures (HDPE liners) and other appropriate methods of leak testing (clean out and conduct a visual inspection for each impoundment with an asphalt liner) to assess leaks per Section 2.2.3.1 and report the results per Section 2.7.4.1. Annual Report Leak Detection Inspections.	No Later than March 30 of the following years: 2018, 2023, 2028, etc.	No
2	The permittee shall submit Post-closure Plans for the solid waste landfill. The Plans shall include components required under Section 2.10.2 of this permit.	Within 60 days from the date of permit signature.	No
3	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 4 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of the self-assurance demonstration as required in A.A.C. R18-9-A203(C)(1).	Every two (2) years from the date of permit signature, for the duration of the permit.	No
4	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a.	Every six (6) years from the last facility closure and post-closure cost estimates submitted.	Yes

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

FACILITY INSPECTIONS

- TABLE 1A – Recoverable Water Reservoir
- TABLE 1B – Cooling Tower Blowdown Reservoir
- TABLE 1C – Wastewater Reservoir
- TABLE 1D – Evaporation Pond
- TABLE 1E – Northeast Retention Pond
- TABLE 1F – Yard Ditch
- TABLE 1G – Ash Disposal Landfill and Solid Waste Landfill
- TABLE 1H –Inactive Ash Slurry Settling Ponds
- TABLE 1I – Fire Training Area
- TABLE 1J - Leak Collection System Monitoring - Water Reservoir Sump

GROUNDWATER MONITORING

- TABLE 2A - Groundwater Monitoring - MW-36
- TABLE 2B - Groundwater Compliance Monitoring –MW-59
- TABLE 2C - Compliance Groundwater Monitoring –MW-62
- TABLE 2D - Groundwater Compliance Monitoring- MW -66
- TABLE 2E- Compliance Groundwater Monitoring – MW-67R
- TABLE 2F - Monitor Well for Contaminated Perched Water –MW-65
- TABLE 2G - Groundwater Compliance Monitoring- MW-78
- TABLE 3 – Seepage Well Monitoring for Evaporation Pond

DISCHARGE MONITORING

- TABLE 4A – Reservoirs, Ponds and Sump
- TABLE 4B – Oil/Water Separator

4.3 CONTINGENCY MONITORING

- TABLE 5 – Characterization for BADCT Failures and/or Overtopping

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1A
FACILITY INSPECTIONS
RECOVERABLE WATER RESERVOIR – Log Book[1]

Parameter	Performance Standard	Monitoring Frequency
Freeboard	Minimum of 2 feet	Monthly
Liner Integrity[2]	No visible cracks, punctures, or deteriorations of liner	Monthly and every five (5) years
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly
Oil/Water Separator	Good working condition and achieving treatment performance standards for oil and grease removal (<15 mg/l), routine maintenance and sludge removal so that sludge does not accumulate beyond 25 percent of design capacity	Monthly

TABLE 1B
FACILITY INSPECTIONS
COOLING TOWER BLOWDOWN RESERVOIR- Log Book[3]

Parameter	Performance Standard	Monitoring Frequency
Freeboard	Minimum of 6 inches	Monthly
Liner Integrity[4]	No visible cracks, punctures, or deteriorations of liner	Monthly and every five (5) years
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly
Integrity of Pumping System	Good working condition	Monthly

[1] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[2] Every 5 years the permittee shall perform appropriate method of leak testing and clean out the pond or portions of the pond before performing any necessary routine repairs on the liner systems.

[3] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[4] Every 5 years the permittee shall perform appropriate method of leak testing and clean out the pond or portions of the pond before performing any necessary routine repairs on the liner systems.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1C
FACILITY INSPECTIONS
WASTEWATER RESERVOIR - Log Book[5]

Parameter	Performance Standard	Monitoring Frequency
Freeboard	Minimum of 2 Feet	Monthly
Liner Integrity[6]	No visible tears, cracks, punctures, or deteriorations of liner	Monthly and every 5 years
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly
Integrity of sump and automatic pump/switch	Good working condition, probes that trigger automatic pumping system are functioning properly and according to the preset "high" and "low" levels in the sump	Monthly

TABLE 1D
FACILITY INSPECTIONS
EVAPORATION POND - Log Book[7]

Parameter	Performance Standard	Monitoring Frequency
Dam Integrity	No noticeable structural weakness, seepage erosion, or other hazardous conditions such as sloughing, movement of the toe, or rip rap failures	Monthly
Seepage Flow Rate (for seepage collection sump)	Total volume of seepage into the sump does not exceed the design flow of 100 gpm	Monthly
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly
Integrity of collection sump and pump	Good working condition	Monthly
	Visual inspection for fluid	Weekly[8]

[5] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[6] Every 5 years the permittee shall perform appropriate method of leak testing and clean out the pond or portions of the pond before performing any necessary routine repairs on the liner systems.

[7] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[8] Weekly or more frequently, as necessary

	Pumping out seepage from sump back into the Evaporation Pond	
Integrity of Dam Safety	Monitor clay-swelling on monuments	In Accordance with 2.2.3.3 Damn Safety Monitoring
Integrity of pipeline	No leaks or visible damage, good working condition	Monthly

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1E
FACILITY INSPECTIONS
NORTHEAST RETENTION POND - Log Book[9]

Parameter	Performance Standard	Monitoring Frequency
Freeboard	Minimum of 2 Feet	Monthly
Liner Integrity[10]	No visible cracks, punctures, or deteriorations of liner	Monthly and every 5 years after sludge removal for routine cleanouts
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly

TABLE 1F
FACILITY INSPECTIONS
YARD DITCH - Log Book[11]

Parameter	Performance Standard	Monitoring Frequency
Sedimentation and Ash Buildup	No obstructions that impair the function of the collection system	Monthly
Liner Integrity	No structural damage or visible cracks in concrete liner	Monthly

TABLE 1G
FACILITY INSPECTIONS
ASH DISPOSAL LANDFILL AND SOLID WASTE LANDFILL - Log Book[12]

Parameter	Performance Standard	Monitoring Frequency
Cap/Structural Integrity	No surface subsidence or settlement, no ponding water, no visible erosion	Monthly and after any significant rainfall or storm event

[9] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[10] Every 5 years the permittee shall perform appropriate method of leak testing and clean out the pond or portions of the pond before performing any necessary routine repairs on the liner systems.

[11] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[12] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1H
FACILITY INSPECTIONS
INACTVE ASH SLURRY SETTLING PONDS - Log Book[13]

Parameter	Performance Standard	Monitoring Frequency
Berm Integrity	No visible structural weakness, seepage erosion, or other hazardous conditions	Monthly

TABLE 1I
FACILITY INSPECTIONS
FIRE TRAINING AREA - Log Book[14]

Parameter	Performance Standard	Monitoring Frequency
Integrity of concrete burn pad	No visible cracks or damage to pad	Bimonthly[15]

[13] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[14] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[15] Bimonthly means once every 2 months

TABLE 1J
LEAK COLLECTION SYSTEM MONITORING - Log Book[16]- No SMRFs

LCRS Sump	Parameter	AL1[17] (gpm)	AL2[18] (gpm)	Monitoring[19] Method
Wastewater Reservoir Sump	Liquid Pumped[20]	5	150	Monthly[21]

[16] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[17] AL#1= Exceedance in Alert Level #1. The permittee shall place into action the requirements presented in 2.6.2.4.1. Exceedance of an AL is not a violation. If no event occurred, the Permittee shall state the fact in the Log Book.

[18] AL#2 = Exceedance in Alert Level #2. The permittee shall place into action the requirements presented in 2.6.2.4.2. Exceedance of an AL is not a violation. If no event occurred, the Permittee shall state the fact in the Log Book.

[19] LCRS inspection and leakage quantification shall be performed while the impoundment is "in use" (when fluids are present in the impoundment and/or LCRS). Evacuation of fluids in the sump shall be performed as necessary for accurate monitoring and effective operation of the collection system. Routine analysis of sump fluids is not required. However, characterization of sump fluids is required as a contingency action in Section 2.6.

[20] The "Liquid Pumped" value to be reported is the amount of liquid pumped from the LCRS sump in gpm.

[21] LCRS pumping shall be continuous as indicated by the fluid level in the sump. Review of pumped quantities shall be performed when possible while the Impoundment is in operation.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2A
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Well #MW-36[22] Between the Cooling Towers and northwest of the Fire Training Area			34° 34' 57.5"North	109° 16' 26.7"West
Parameter	**AL[23]**	**AQL[24]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor	Monitor	Feet bgs[25]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Arsenic	Monitor[26]	Monitor	mg/l	Semi-annually	Semi-annually
Barium	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Cadmium	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Chromium	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Fluoride	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Lead	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Selenium	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Sulfate	Monitor	Monitor	mg/l	Semi-annually	Semi-annually

[22] MW-36 is not a designated POC well. This well monitors the groundwater between the Cooling Towers and northwest of the Fire Training Area.
[23] AL = Alert Level
[24] AQL = Aquifer Quality Limit
[25] bgs= Below Ground Surface
[26] Monitoring is required, but no limit is established.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2B
GROUNDWATER COMPLIANCE MONITORING
NON HAZARDOUS POC MONITORING WELL

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	POC Well #MW-59 Center of the Northern edge of the 640 acre Plant Site			34° 35' 07.05"North	109° 16' 20.5"West
Parameter	**AL[27]**	**AQL[28]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor	Not Established	Feet bgs[29]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Arsenic	0.04	NE[30]	mg/l	Semi-annually	Semi-annually
Barium	1.6	NE	mg/l	Semi-annually	Semi-annually
Cadmium	0.004	NE	mg/l	Semi-annually	Semi-annually
Chromium	0.08	NE	mg/l	Semi-annually	Semi-annually
Fluoride	3.2	NE	mg/l	Semi-annually	Semi-annually
Lead	0.04	NE	mg/l	Semi-annually	Semi-annually
Selenium	0.04	NE	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor[31]	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	2,471	NE	mg/l	Semi-annually	Semi-annually
Sulfate	1,043	NE	mg/l	Semi-annually	Semi-annually

[27] AL = Alert Level
[28] AQL = Aquifer Quality Limit
[29] bgs= Below Ground Surface
[30] NE = Not established – No numeric AWQS is established for this parameter; therefore, no AQL was established. Monitor for alert level actions.
[31] Monitoring is required, but no limit is established.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2C
COMPLIANCE GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	POC Well #MW-62 Northeast Corner of the 640 acre Plant Site			34° 35' 07.09"North	109° 15' 40.0"West
Parameter	**AL[32]**	**AQL[33]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor	Not Established	Feet bgs[34]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Arsenic	0.04	0.05	mg/l	Semi-annually	Semi-annually
Barium	1.60	2.0	mg/l	Semi-annually	Semi-annually
Cadmium	0.004	0.005	mg/l	Semi-annually	Semi-annually
Chromium	0.08	0.10	mg/l	Semi-annually	Semi-annually
Fluoride	3.2	4.0	mg/l	Semi-annually	Semi-annually
Lead	0.04	0.05	mg/l	Semi-annually	Semi-annually
Selenium	0.04	0.05	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor[35]	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	1,953	NE[36]	mg/l	Semi-annually	Semi-annually
Sulfate	896	NE	mg/l	Semi-annually	Semi-annually

[32] AL = Alert Level
[33] AQL = Aquifer Quality Limit
[34] bgs= Below Ground Surface
[35] Monitoring is required, but no limit is established.
[36] NE - none established. No numeric AWQS is established for this parameter; therefore, no AQL was established. Monitor for alert level actions.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2D
COMPLIANCE GROUNDWATER MONITORING
NON HAZARDOUS POC MONITORING WELL

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
4	POC Well #MW-66 Northwest Corner of the 640 acre Plant site			34° 35' 08"North	109° 16' 46"West
Parameter	**AL[37]**	**AQL[38]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor	Not Established	Feet bgs[39]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Arsenic	0.04	NE[40]	mg/l	Semi-annually	Semi-annually
Barium	1.6	NE	mg/l	Semi-annually	Semi-annually
Cadmium	0.004	NE	mg/l	Semi-annually	Semi-annually
Chromium	0.08	NE	mg/l	Semi-annually	Semi-annually
Fluoride	3.2	NE	mg/l	Semi-annually	Semi-annually
Lead	0.04	NE	mg/l	Semi-annually	Semi-annually
Selenium	0.04	NE	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor[41]	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	1,650	NE	mg/l	Semi-annually	Semi-annually
Sulfate	662	NE	mg/l	Semi-annually	Semi-annually

[37] AL = Alert Level
[38] AQL = Aquifer Quality Limit
[39] bgs= Below Ground Surface
[40] NE = Not established – No numeric AWQS is established for this parameter; therefore, no AQL was established. Monitor for alert level actions.
[41] Monitoring is required, but no limit is established.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2E
COMPLIANCE GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
5	POC Well #MW-67R[42] South of Unit 1 Cooling Tower and 3			34° 34' 52.87173"North	109°16' 25.31976"West
Parameter	**AL[43]**	**AQL[44]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Not Applicable	Not Established	Feet bgs[45]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Arsenic	0.04	0.05	mg/l	Semi-annually	Semi-annually
Barium	1.60	2.0	mg/l	Semi-annually	Semi-annually
Cadmium	0.004	0.005	mg/l	Semi-annually	Semi-annually
Chromium	0.08	0.10	mg/l	Semi-annually	Semi-annually
Fluoride	3.2	4.0	mg/l	Semi-annually	Semi-annually
Lead	0.04	0.05	mg/l	Semi-annually	Semi-annually
Selenium	0.04	0.05	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor[46]	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	3,721	NE[47]	mg/l	Semi-annually	Semi-annually
Sulfate	1,555	NE	mg/l	Semi-annually	Semi-annually

[42] Groundwater sampling protocol for POC well MW-67R shall be conducted per the third paragraph in Section 2.5.3.
[43] AL = Alert Level
[44] AQL = Aquifer Quality Limit
45 bgs= Below Ground Surface
[46] Monitoring is required, but no limit is established.
[47] NE - none established. No numeric AWQS is established for this parameter; therefore, no AQL was established. Monitor for alert level actions.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2F
MONITOR WELL FOR CONTAMINATED PERCHED WATER - MW-65

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
6	Well #MW-65 Central Plant Area			34° 34' 43.1"North	109° 16' 16.2"West
Parameter	**AL[48]**	**AQL[49]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor[50]	Monitor	Feet bgs[51]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Selenium	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
Total Dissolved Solids (TDS)	Monitor	Monitor	mg/l	Semi-annually	Semi-annually
Sulfate	Monitor	Monitor	mg/l	Semi-annually	Semi-annually

[48] AL = Alert Level
[49] AQL = Aquifer Quality Limit
[50] Monitoring is required, but no limit is established.
[51] bgs= Below Ground Surface

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 2G
GROUNDWATER COMPLIANCE MONITORING

Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
7	POC Well #MW-78 Downgradient of CCR Management Complex			34° 33' 29.3984"North	109° 17' 08.3643"West
Parameter	**AL[52]**	**AQL[53]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Water Level	Monitor	Not Established	Feet bgs[54]	Semi-annually	Semi-annually
Metals (Total Recoverable)					
Antimony	0.0054	0.006	mg/l	Semi-annually	Semi-annually
Arsenic	0.045	0.05	mg/l	Semi-annually	Semi-annually
Barium	1.8	2	mg/l	Semi-annually	Semi-annually
Beryllium	0.0036	0.004	mg/l	Semi-annually	Semi-annually
Boron	0.877	NE[55]	mg/l	Semi-annually	Semi-annually
Cadmium	0.0045	0.005	mg/l	Semi-annually	Semi-annually
Chromium	0.09	0.1	mg/l	Semi-annually	Semi-annually
Fluoride	3.6	4	mg/l	Semi-annually	Semi-annually
Lead	0.045	0.05	mg/l	Semi-annually	Semi-annually
Mercury	0.0018	0.002	mg/l	Semi-annually	Semi-annually
Radium 226 & 228	4.5	5	pCi/l	Semi-annually	Semi-annually
Selenium	0.045	0.05	mg/l	Semi-annually	Semi-annually
Major Cations and Anions:					
pH (field)	Monitor	Monitor	S.U.	Semi-annually	Semi-annually
Total Dissolved Solids (TDS)	423	NE	mg/l	Semi-annually	Semi-annually
Sulfate	2022	NE	mg/l	Semi-annually	Semi-annually

[52] AL = Alert Level
[53] AQL = Aquifer Quality Limit
[54] bgs= Below Ground Surface
[55] NE = Not established – No numeric AWQS is established for this parameter; therefore, no AQL was established. Monitor for alert level actions.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 3
SEEPAGE WELL MONITORING FOR EVAPORATION POND -No SMRFs

Sampling Point Identification	**Sampling Point Location**			**Latitude**	**Longitude**
Sampling Point #8 Seepage well (OMW-1)	Approximately 750 feet downgradient of the Evaporation Pond			34° 33' 39.7"	109° 17' 49.3"
Parameter[56]	**AL**	**DL**	**Units**	**Sampling Frequency**	**Reporting**[57] **Frequency**
Total Dissolved Solids (TDS)	30,000	Not Established	mg/L	Semi-annual	Annual
Electrical Conductivity	20,000	Not Established	µmhos/cm [58]	Semi-annual	Annual

[56] Per Section 2.6.2.5 - If water is detected in the seepage well, the permittee shall collect a representative sample of the water from the well to measure the water quality screening parameters (pH and specific conductance).
[57] No SMRF – Annual Report
[58] µmhos/cm is micro Ohms per centimeter as measured in the field. If accurate field measurements cannot be obtained, the sample shall be analyzed in a certified laboratory.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4A
DISCHARGE MONITORING SAMPLING[59]

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
9	East and West Recoverable Water Reservoir			34° 34' 46.3"	109° 16' 18.9"
10	Cooling Tower Blowdown Reservoir			34° 34' 50.3"	109° 16' 18.9"
11	Wastewater Reservoir			34° 34' 48.4"	109° 16' 18.9"
12	Evaporation Pond			34° 33' 16.3"	109° 17' 10.4"
Parameter	**AL[60]**	**DL[61]**	**Units**	**Monitoring Frequency[62]**	**Reporting Frequency**
pH	NE[63]	NE	S.U.	Every Five Years	Every Five Years
Total Dissolved Solids (TDS)	NE	NE	mg/l[64]	Every Five Years	Every Five Years
Chloride	NE	NE	mg/l	Every Five Years	Every Five Years
Fluoride	NE	NE	mg/l	Every Five Years	Every Five Years
Sulfate	NE	NE	mg/l	Every Five Years	Every Five Years
Antimony	NE	NE	mg/l	Every Five Years	Every Five Years
Arsenic	NE	NE	mg/l	Every Five Years	Every Five Years
Barium	NE	NE	mg/l	Every Five Years	Every Five Years
Beryllium	NE	NE	mg/l	Every Five Years	Every Five Years
Boron	NE	NE	mg/l	Every Five Years	Every Five Years
Cadmium	NE	NE	mg/l	Every Five Years	Every Five Years
Chromium	NE	NE	mg/l	Every Five Years	Every Five Years
Lead	NE	NE	mg/l	Every Five Years	Every Five Years
Mercury	NE	NE	mg/l	Every Five Years	Every Five Years
Nickel	NE	NE	mg/l	Every Five Years	Every Five Years
Selenium	NE	NE	mg/l	Every Five Years	Every Five Years
Silver	NE	NE	mg/l	Every Five Years	Every Five Years
Zinc	NE	NE	mg/l	Every Five Years	Every Five Years
Radionuclide[65]					
Gross Alpha (including Radium 226 excluding Radon and Uranium)	NE	NE	pCi/L	Every Five Years	Every Five Years
Radium 226 + Radium 228	NE	NE	pCi/L	Every Five Years	Every Five Years
Radon	NE	NE	pCi/L	Every Five Years	Every Five Years
Uranium(total Uranium including Uranium 234, 235 and 238)	NE	NE	pCi/L	Every Five Years	Every Five Years

[59] No SMRFS
[60] AL = Alert Level
[61] DL = Discharge Limit
[62] Monitoring shall be required as one sample every five years.
[63] NE= Not Established = No numeric AWQS is established for this parameter, therefore no AQL is established for this permit. Monitor for alert level actions.
[64] mg/l = milligrams per liter
[65] Radionuclides shall be measured in PicoCuries per liter (pCi/l) and shall only be conducted for wastewater samples collected from the Evaporation Pond, Northeast Retention Pond, and Wastewater Reservoir.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 4B
DISCHARGE MONITORING FOR OIL/WATER SEPARATOR- Log Book[66]- No SMRFs

Parameter	AL[67]	DL	Units	Monitoring Frequency
Oil & Grease	Not Established [68]	15	mg/l	Once per year

[66] The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any exceedances as per Section 2.6.2.1. In the case of an exceedance, identify which structure exceeds the performance level in the log book. No SMRFs.

[67] An exceedance of the DL for oil and grease shall trigger contingency actions in Section 2.6.3.1.

[68] Not Established = No numeric AWQS is established for this parameter, therefore no AQL is established for this permit. Monitor for alert level actions.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 5
CONTINGENCY DISCHARGE CHARACTERIZATION FOR BADCT FAILURES AND/OR OVERTOPPING[69]

Parameter	Units	Monitoring Frequency[70]
pH-field	SU	One sample
Temperature-field	F	One sample
Specific Conductance-field	(µmhos/cm)	One sample
Alkalinity	mg/l[71]	One sample
Carbonate	mg/l	One sample
Bicarbonate	mg/l	One sample
Hydroxide	mg/l	One sample
Total Dissolved Solids (TDS)	mg/l	One sample
Calcium	mg/l	One sample
Chloride	mg/l	One sample
Fluoride	mg/l	One sample
Magnesium	mg/l	One sample
Nitrate	mg/l	One sample
Potassium	mg/l	One sample
Sodium	mg/l	One sample
Sulfate	mg/l	One sample
Antimony	mg/l	One sample
Arsenic	mg/l	One sample
Barium	mg/l	One sample
Beryllium	mg/l	One sample
Boron	mg/l	One sample
Cadmium	mg/l	One sample
Chromium	mg/l	One sample
Lead	mg/l	One sample
Mercury	mg/l	One sample
Nickel	mg/l	One sample
Selenium	mg/l	One sample
Thallium	mg/l	One sample
Zinc	mg/l	One sample
Adjusted Gross Alpha[72]	pCi/l[73]	One sample
Radium 226+ Radium 228	pCi/l	One sample

[69] Monitor under this table per Section 2.6.3.2, Liner Failure, Containment Structure Failure, or Unexpected Loss of Fluid and/or Section 2.6.3.3, Overtopping of a Surface Impoundment.
[70] One verification sample shall be taken within 5 days of an event.
[71] mg/l = milligrams per liter
[72] The adjusted gross alpha particle activity is the gross alpha activity, including radium 226, minus radon and total uranium (the sum of uranium 238, uranium 235, and uranium 234 isotopes).
[73] pCi/l = PicoCuries per liter

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated: July 25, 2017
2. Public Notice dated _____.
3. Public Hearing dated _____.
4. Responsiveness Summary dated _____.

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).